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COMMENTARY

Frailty in the face of COVID-19

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Key points

- The Clinical Frailty Scale is a quick and reliable screening tool for frailty.
- While the CFS has value in allocation of scarce health resources, it also has limitations.
- Frailty is a continuum rather than a dichotomous variable.
- The type and severity of the presenting illness are important variables independently associated with the clinical outcome.
- A person-centred approach should consider the severity of illness and likelihood of success as well as the degree of frailty.

We are living in extraordinary times and experiencing an unprecedented surge in demand for health care services. Older people are at significant increased risk from coronavirus disease (COVID-19) [1] due to decreased immune function and multi-morbidity. Data from the USA and China show people aged >65 years represent half of the admissions to hospital related to COVID-19, more than half of the admissions to the intensive care unit (ICU) and account for 80% of deaths [2].

Rapidly increasing healthcare demand due to COVID-19 requires clinicians to make difficult medical and ethical decisions about the treatment of older people, models of care and triage systems. Algorithms and scoring systems are being developed to predict risks of mortality in relation to the most limited resources such as mechanical ventilation. Screening of frailty is being proposed as a key tool to assist in this triage process [3].

Frailty has become a cornerstone of geriatric medicine and geriatricians have long advocated for screening of frailty whenever older people access health care. This is justified: frailty can capture the health status of an older person and is a predictor of multiple adverse outcomes both for community-dwellers [4] and for inpatients [5]. On this basis, geriatricians have promoted development and broad uptake of convenient screening and assessment tools to assist in the identification of people who live with varying degrees of frailty. The Clinical Frailty Scale (CFS) is a quick and reliable screening tool for frailty, which performs better than measures of cognition, function or comorbidity in assessing medium-term risk of death [6]. The CFS was developed and validated to summarise the clinical judgment of a geriatrician completing a comprehensive geriatric assessment (CGA). CGA is multidimensional process that identifies medical, social and functional needs and the CFS, even as currently

employed as a screening tool, takes into account physical and cognitive function, health attitude, comorbidities and symptom management.

While we agree that a multidimensional measure of frailty such as the CFS has value in allocation of scarce health resources, it is important for clinicians and administrators to understand its limitations when used in the acute hospital setting. Frailty is not synonymous with end-of-life. In a non-COVID-19 related study of 15,613 patients aged ≥ 80 years in ICUs across Australia, those with a CFS ≥ 5 had significantly poorer health outcomes than age matched peers who were more robust, but the prevalence of in-hospital mortality (17.6 versus 8.2%) and of new discharges to residential aged care facilities (4.9 versus 2.8%) suggest the majority of frail patients do survive and return home to the community [7].

To the best of our knowledge, appropriate cutpoints for the use of frailty scales to determine access of older people to health care have not been studied. In the UK, National Institute for Health & Care Excellence (NICE) guidelines suggest that COVID positive patients with a CFS ≥ 5 would not benefit from admission to ICU [3], yet frailty is not a dichotomous variable. Pre-COVID studies report a gradation in outcomes across CFS categories [6]; older people with a CFS of 5 (limited dependence on others for instrumental activities of daily living) differ significantly from those with a CFS of 8 (completely dependent for all personal care) not just in functional status but in their ability to recover from any insults. Most importantly, the type and severity of the presenting illness are important variables independently associated with the clinical outcome. Acute illness is less well tolerated in frailer patients, but the degree of illness acuity and the degree of frailty are each important [8].

There are other mediating factors: female sex [9], smoking [10] and social vulnerability [11] also influence how risk is expressed in relation to frailty. Across grades of frailty, men, smokers and people who are more socially vulnerable have poorer outcomes. In the acute instance, these factors are no more remediable than is illness acuity, but it does draw to attention that even a fair, non-age-based assessment can still be biased.

In summary, we recommend against the use of screening tools (including the CFS when used as such) as the sole component to ration access of older people to health care. Instead we recommend that frailty screening tools are implemented as a rapid component of a person-centred approach to assessment that takes account of three key biomedical factors: severity of the presenting acute illness, the likelihood of medical interventions being successful and the degree of frailty.

Declaration of Conflicts of Interest: Through Dalhousie University, Ken Rockwood has asserted copyright of the Clinical Frailty Scale. It is free for research, education, and not-for-profit health care. Users are asked to indicate that they will not change or commercialize it.

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